

CLAIMS

What is claimed:

1. A disk of an optical tester, comprising:
 - 2 a transparent substrate that has a first surface and an opposite second surface;
 - 4 a coating on said first surface of said transparent substrate, wherein a thickness of said coating is substantially inversely proportional to a refractive index of
 - 5 said coating.
2. The disk as recited in Claim 1, wherein said thickness of said coating is further substantially proportional to a wavelength of light used to be in said tester.
- 1 3. The disk as recited in Claim 1, wherein said coating is transparent.
- 1 4. The disk as recited in Claim 3, wherein said transparent coating has a hardness that is greater than a hardness of said transparent substrate.
- 1 5. The disk as recited in Claim 3, wherein said transparent substrate is a glass material and said transparent coating is a diamond-like-carbon material.

1 6. The disk as recited in Claim 5, wherein said diamond-like-carbon material
2 is hydrogenated.

1 7. The disk as recited in Claim 5, wherein said diamond-like-carbon material
2 is nitrogenated.

8. A flying height tester for a recording head of a hard disk drive,
comprising:

 a transparent substrate that has a first surface and an opposite
 second surface;

 a coating on said first surface of said transparent substrate, said
 coating being adjacent to the recording head, wherein a thickness of said coating
 is substantially inversely proportional to a refractive index of said coating;

 a light source that directs a beam of light through said transparent
 substrate and said coating and onto the recording head, wherein the beam of
 light is reflected from the recording head; and,

 a photodetector that detects the reflected light beam.

1 9. The tester as recited in Claim 10, wherein said thickness of said coating is
2 further substantially proportional to a wavelength of said light.

1 10. The tester as recited in Claim 8, wherein said coating is transparent.

1 11. The tester as recited in Claim 10, wherein said transparent coating has a
2 hardness that is greater than a hardness of said transparent substrate.

1 12. The tester as recited in Claim 10, wherein said transparent substrate is a glass
material and said transparent coating is a diamond-like-carbon material.

1 13. The tester as recited in Claim 12, wherein said diamond-like-carbon
material is hydrogenated.

1 14. The tester as recited in Claim 12, wherein said diamond-like-carbon
2 material is nitrogenated.

1 15. A process for providing a disk for an optical tester, comprising:
2 providing a transparent substrate that has a first surface and an opposite
3 second surface;
4 attaching a layer on said first surface of said transparent substrate,
5 wherein a thickness of said layer is substantially inversely proportional to a refractive
6 index of said layer.

1 16. The process as recited in Claim 15, wherein said thickness of said layer is
2 further substantially proportional to a wavelength of light used in said tester.

1 17. The process recited in Claim 15, wherein said layer is transparent.

1 18. The process as recited in Claim 15, wherein said transparent layer has a
2 hardness that is greater than a hardness of said transparent substrate.

1 19. The process as recited in Claim 18, wherein said transparent substrate is a
2 glass material and said transparent layer is a diamond-like-carbon material.

1 20. The process as recited in Claim 19, wherein said diamond-like-carbon
2 material is hydrogenated.

1 21. The process as recited in Claim 20, wherein said diamond-like-carbon
2 material is nitrogenated.